

Serial No. 10/729,883
Wakefield, et al.
Filed December 5, 2003

Response to Office Action

Examiner: Phuong Thao Cao
Group Art Unit: 2164

~~producing interpreting the free text to produce~~ a set of construed data of said multi-dimensional relational facts reflecting at least one relational fact conveyed in the free text, each construed datum relatable to a data tuple of the structured data from the same data record that the free text originated from;

integrating the produced data with ~~the data tuples of the structured data;~~ and
~~data mining the integrated data~~

performing analytic processing on the integrated data.

Claim 2 (cancelled)

Claim 3 (cancelled)

Claim 4 (currently amended) 4. A computer program product according to claim 1, wherein said instructions are further executable to perform the function of applying caseframes while performing said extracting step interpreting the free text.

Claim 5 (currently amended) 5. A computer program product according to claim 1, wherein said instructions are further executable to perform the function of producing a new database containing the integrated data ~~produced by said integrating.~~

Claim 6 (currently amended) 6. A computer program product according to claim 1, wherein said instructions are further executable to perform the function of inserting the produced data into the database of structured data while performing said integrating step the produced data.

Claim 7 (cancelled)

Claim 8 (cancelled)

Claim 9 (cancelled)

Claim 10 (currently amended) 10. A computer program product according to claim 5 9, wherein the instructions are further executable to produce a file having a format selected from the group of XML,

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character separated values, spreadsheet formats and file-based database structures.

Claim 11 (cancelled)

Claim 12 (currently amended) 12. A computer program product according to claim 1, wherein said instructions are further executable to combine similar like attributes for the extracted relational facts ~~produced in performing said extracting relational facts from the free text.~~

Claim 12 (currently amended) 13. A computer program product according to claim 1, wherein said instructions are further executable to combine similar like relation types for the extracted relational facts produced in performing said extracting relational facts from the free text.

Claim 14 (original) 14. A computer program product according to claim 1, wherein said instructions provide relational facts with domain roles applied in performing said extracting relational facts from the free text.

Claim 15 (original) 15. A computer program product according to claim 1, wherein said instructions store the relational facts produced in performing said extracting relational facts from the free text.

Claim 16 (original) 16. A computer program product according to claim 1, wherein the extracted relational facts produced in performing said extracting relational facts and the integrated data produced by the performance of said integrating the produced data includes reference information to the original free text.

Claim 17 (currently amended) 17. A computer program product located to one or more storage media devices usable to perform integration of mixed format data, said computer program product comprising instructions executable by a computer to perform the functions of:
accessing a database on computer-readable storage media containing data records, at least some data records containing both of structured data and unstructured data, the unstructured data including free text that has information relatable to the structured data contained in the same data record where the particular free text is found; the structured data comprising a set of data tuples;

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~~accessing a source of unstructured data, the unstructured data including free text relating to the data tuples of the structured data;~~

using linguistic information contained in the free text and caseframes to extract multi-dimensional relational facts from the free text, each multi-dimensional relational fact including a plurality of attributes concerning the free text from which it was extracted;

~~extracting relational facts from the free text;~~

producing interpreting the free text to produce a set of construed data of said multi-dimensional relational facts reflecting at least one relational fact conveyed in the free text, each construed datum relating to a data tuple of the structured data from the same data record that the free text originated from;

~~integrating the produced data with the data tuples of the structured data; and~~

~~data mining the integrated data~~

performing analytic processing on the integrated data.

Claim 18 (cancelled)

Claim 19 (cancelled)

Claim 20 (cancelled)

Claim 21 (original) 21. A computer program product according to claim 17, wherein said instructions are further executable to perform the function of producing a new database containing the integrated data produced by said integrating.

Claim 22 (original) 22. A computer program product according to claim 17, wherein said instructions are further executable to perform the function of inserting the produced data into the database of structured data while performing said integrating the produced data.

Claim 23 (cancelled)

Claim 25 (cancelled)

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Claim 26 (original) 26. A computer program product according to claim 25, wherein the instructions are further executable to produce a file containing the integrated data produced by said integrating.

Claim 27 (original) 27. A computer program product according to claim 26, wherein the instructions are further executable to produce a file having a format selected from the group of XML, character separated values, spreadsheet formats and file-based database structures.

Claim 28 (original) 28. A computer system including a computer program product according to claim 17, further comprising: a processing unit coupled to said one or more storage media devices, said processing unit being capable of executing said instructions; and an execution command unit, whereby operation of said instructions and said processing unit may be commanded or controlled.

Claim 29 (original) 29. A computer program product according to claim 17, wherein said instructions are further executable to combine like attributes for the extracted relational facts produced in performing said extracting relational facts from the free text.

Claim 30 (original) 30. A computer program product according to claim 17, wherein said instructions are further executable to combine like relations for the extracted relational facts produced in performing said extracting relational facts from the free text.

Claim 31 (original) 31. A computer program product according to claim 17, wherein said instructions provide relational facts with domain roles applied in performing said extracting relational facts from the free text.

Claim 32 (original) 32. A computer program product according to claim 17, wherein said instructions store the relational facts produced in performing said extracting relational facts from the free text.

Claim 33 (original) 33. A computer program product according to claim 17, wherein the extracted relational facts produced in performing said extracting relational facts and the integrated data produced by the performance of said integrating the produced data includes reference

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information to the original free text.

34. A method for integrating mixed format data, comprising the steps of:

accessing a database on computer-readable storage media containing data records, at least some data records containing both of structured data and unstructured data, the unstructured data including free text that has information relatable to the structured data contained in the same data record where the particular free text is found; the structured data comprising a set of data tuples;

accessing a source of unstructured data, the unstructured data including free text relatable to the data tuples of the structured data;

using linguistic information contained in the free text and caseframe application to extract multi-dimensional relational facts from the free text, each multi-dimensional relational fact including a plurality of attributes concerning the free text from which it was extracted;

extracting relational facts from the free text;

producing a set of construed data reflecting at least one relational fact conveyed in the free text, each construed datum containing at least one relational fact, each construed datum being further relatable to a data tuple of the structured data; and

integrating the multi-dimensional relational facts with produced data with the data tuples of the structured data.

Claim 35 (cancelled)

Claim 36 (cancelled)

Claim 37 (cancelled)

Claim 38 (currently amended) 38. A method according to claim 34, further comprising the step of producing a new database containing the integrated data ~~produced by said integrating.~~

Claim 39 (currently amended) 39. A method according to claim 34, further comprising the step of inserting the produced data into the database of structured data.

Claim 40 (cancelled)

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Claim 41 (cancelled)

Claim 42 (currently amended) 42. A method according to claim 41 34, wherein new database includes at least one file containing the integrated data produced by said integrating.

Claim 43 (original) 43. A method according to claim 42, wherein the new database has a format selected from the group of XML, character separated values, spreadsheet formats and file-based database structures.

Claim 44 (original) 44. A method according to claim 34, further comprising the step of combining like attributes for the extracted relational facts produced in performing said extracting relational facts from the free text.

Claim 45 (original) 45. A method according to claim 34, further comprising the step of combining like relation types for the extracted relational facts produced in performing said extracting relational facts from the free text.

Claim 46 (original) 46. A method according to claim 34, wherein domain roles are applied in said step of extracting relational facts from the free text.

Claim 47 (cancelled)

Claim 48 (cancelled)

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